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(54) TIME: UREA DERIVATIVES AND THEIR USE AS ACAT-INHIBITORS

(57) Abstract

Urea derivatives of formula (1), wherein R1 is a group of formula (1) (in which R4 is aryl which may have suitable substituent(s), or heterocyclic group which may have suitable substituent(s), and Y is bond, lower alkylene, -S-, -O-, (a), -CH-, -CONH-, (b), (in which R7 is lower alkyl), -NHSO2--SO2NH-, SONHCO--CONHSO₂-); -CONHSO₂-); or miazolyl, imidazolyl, pyrazolyl, pyrazolyl,

$$R^{1}-(CH_{2})_{n}-N-C-NH-R^{3}$$
 (I) $R^{4}-Y-C$

thienyl, furyl, isoxazolyl or chromanyl, each of which may have suitable substituent(s); R2 is lower alkyl, lower alkoxy(lower)alkyl, cycloalkyl, ar(lower)alkyl which may have suitable substituent(s), heterocyclic group or heterocyclic(lower)alkyl, R3 is aryl which may have suitable substituent(s) or heterocyclic group which may have suitable substituent(s), and n is 0 or 1, and a pharmaceutically acceptable salt thereof which are useful as a medicament in the treatment of hypercholesterolemia, hyperlipidemia and atherosclerosis.

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CLAIMS

1. A compound of the formula :

$$R^{1}-(CH_{2})_{n}-\stackrel{O}{\underset{R}{\mapsto}}C-NH-R^{3}$$

wherein

R¹ is a group of the formula :

(in which

R⁴ is aryl which may have suitable substituent(s), or heterocyclic group which may have suitable substituent(s); and

Y is bond, lower alkylene, -S-, -O-, -C-, =CH-, -CONH-, -N-CO-, (in which R⁷ is lower R⁷ alkyl), -NHSO₂-, -SO₂NH-, -SO₂NHCO- or -CONHSO₂-);

thiazolyl, imidazolyl, pyrazolyl, pyridyl, thienyl, furyl, isoxazolyl or chromanyl, each of which may have suitable substituent(s);

- R² is lower alkyl, lower alkoxy(lower)alkyl, cycloalkyl, ar(lower)alkyl which may have suitable substituent(s), heterocyclic group or heterocyclic(lower)alkyl,
- R³ is aryl which may have suitable substituent(s) or heterocyclic group which may have suitable

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substituent(s), and
n is 0 or 1,
and a pharmaceutically acceptable salt thereof.

 A compound of claim 1, wherein R¹ is a group of the formula :

(in which

R⁴ is phenyl which may have 1 to 3 substituent(s) selected from the group consisting of halogen, lower alkyl, di(lower)alkylamino, protected amino, cyano, heterocyclic group which may have mono(or di or tri)—ar(lower)alkyl, hydroxy, protected hydroxy and mono(or di or tri)halo(lower)alkyl; or thienyl, pyrazolyl, imidazolyl, triazolyl, pyridyl, pyrrolyl, tetrazolyl, oxazolyl, thiazolyl, oxadiazolyl, piperazinyl, thiazolidinyl or methylenedioxyphenyl, each of which may have 1 to 3 substituent(s) selected from the group consisting of lower alkyl, mono(or di or tri)ar(lower)alkyl and oxo;

Y is bond, lower alkylene, -S-, -O-, -C-, =CH-, -CONH-, -N-CO- (in which R⁷ is lower alkyl), R⁷
-NHSO₂-, -SO₂NH-, -SO₂NHCO- or -CONHSO₂-); or thiazolyl, imidazolyl, pyrazolyl, pyridyl,

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